



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

D412-742-013
Job Sheet 168750



Part No: D412-742-013

Job Qty: 1 ea

Part Name: Skidtube Fits LH or RH High Gear, DART (Apical) Tri-Bag Float Compatible



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 11/22/17

Job Tracking No:

Due Date: 12/27/17

Created By: Mario Poulin

Type: SOLD

Description:

Customer: Aeroservicios Especializados SA de CV - ASES (CASES01)

Calle Rio San Lorenzo #699 Int 102, San Pedro Garza Garcia Fuentes Del Valle, Nuevo León, 66220 Mexico
ph:52-938-382-2113 fx:52-938-384-0535.

Note: IPP Rev: A 05.10.13 New Issue KJ/JLM IPP Rev: B 06-06-08 As per DSI9336 JLM IPP Rev: C 07-05-28 As per Rev C JLM IPP rev D 07.11.01 ecn 1053P EC IPP rev E 07.11.27 ecn 1072 EC verified: DD IPP Rev: F 08-09-08 ecn 08-510 DD verified: EC IPP Rev: G 09-01-23 as per DSI9441 DD verified: EC IPP Rev: H 11.11.01 as per DSI9517 REV.B DD verified: EC IPP rev: I 12.01.12 PER IIN REV.E DD VERF: JLM IPP REV: J 17.05.10 AS PER CHG010 DD VERF: JFS

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
110	Start up Operation	1 Ea		12/27/17	0.00	0.00	Start Up Stores/Pkg-1		SMO
115	Packaging	1 pcs		12/27/17	0.00	0.00	Packaging1		
120	QC	1 pcs		12/27/17	0.00	0.00	QC4		
125	DC	1 pcs		12/27/17	0.00	0.00	DC		
130	Packaging	1 pcs		12/27/17	0.00	0.00	Packaging3		
140	QC21-FG	1 Ea		12/27/17	0.00	0.00	QC21		

Part Op 125 - Photocopy bluefile and create labels per PPP D412-742-013 CHG0010
Descriptions: 130 - Identify and pack for shipping as per PPP D412-742-013

Job Allocations

Operation	Component Part	Required	Inventory	Allocated	Std Qty
110-Start up Operation	AN3C37A SO23482	1 ✓	0	0	0
	AN3C40A SO23481	1 ✓	75	0	0
	AN3C41A SO23480	1 ✓	492	0	0
	AN3C42A SO23479	1 ✓	29	0	0
	AN3C43A SO23477	4 ✓	41	0	0
	AN3C46A SO23476	5 ✓	223	0	0
	AN4C47A SO23474	4 ✓	42	0	0
	AN4C52A SO23473	4 ✓	61	0	0
	AN4C53A SO23471	4 ✓	95	0	0
	X1 SO23470 AN4C6A SO19408 X15	16 ✓	302	0	0
	AN4C7A SO23467	4 ✓	113	0	0
	AN6C12A SO23466	8 ✓	125	0	0
	D2571 SO23465	1 ✓	17	0	0
	D2572 SO23464	1 ✓	15	0	0
	D2573 SO23463	1 ✓	22	0	0
	D2574 SO23462	1 ✓	17	0	0
	D2747 SO23461	4 ✓	142	0	0
	D2876 SO23460	2 ✓	65	0	0
	D2877 f163850	2 ✓	54	0	0

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

D3403-1	S023451	8 ✓	38	0	0
D3403-3	S023456	8 ✓	73	0	0
D3403-5	S023452	8 ✓	33	0	0
D3405-04	S023450	1 ✓	13	0	0
D3405-04	S023449	1 ✓	14	0	0
D3407-041	S023448	1 ✓	18	0	0
D3417-3	S023444	2 ✓	40	0	0
D3456-1	S022441	1 ✓	166	0	0
D3533-1	S023440	2 ✓	39	0	0
D3672-11	S023439	8 ✓	624	0	0
D3672-3	S023557	32 ✓	724	0	0
D3672-9	S023427	8 ✓	982	0	0
D412-742-043	S027540	1 ✓	0	0	0
MS21043-3	S023434	13 ✓	709	0	0
MS21043-4	S023435	29 ✓	798	0	0
NAS1149C0332R	S023439	26 ✓	3,419	0	0
NAS1149C0432R	S023433	32 ✓	1,078	0	0
NAS1149C0632R	S023432	8 ✓	149	0	0

Part Specifications

Specifications could not be found.

Plex 11/22/17 10:08 AM dart.poulin.mario

DART
AEROSPACE
S027720

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Skidtube Fits LH or RH High Gear, DART (Apical) Tri – Bag
Float Compatible

PART NO: D412-742-013

Revision:

Operation: Start up Operation

Change No: CHG010

Mfg Date: 12/29/17

Job No: 168750

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐								
Misidentified ☐	Past Due ☐								
		OTHER : _____							

(CONTINUED FROM PAGE 21)

Item	Qty -013	Qty -043	Part Number	Description
40	1		D2571	SADDLE, FWD OUTSIDE
41	1		D2572	SADDLE, FWD INSIDE
42	1		D2573	SADDLE, AFT OUTSIDE
43	1		D2574	SADDLE, AFT INSIDE
44	2		D2876	SADDLE SPACER
45	2		D2877	SADDLE SPACER
46A	8		D3403-1	BUSHING
46B	8		D3403-5	BUSHING
47A	4		D2747	SET SCREW
47B	2		D3533-1	SET SCREW
48	16		AN4C6A	BOLT
49A	4		AN4C52A	BOLT
49B	4		AN4C53A	BOLT
50	8		AN6C12A	BOLT
51A	32		D3672-3	WASHER (REPLACES NAS1515H4L)
51B	32		AN960C416L	WASHER
52A	8		D3672-9	WASHER (REPLACES NAS1515H6L)
52B	8		AN960C616L	WASHER
53	8		D3672-11	WASHER (REPLACES NAS1515H7L)
54	24		MS21043-4	NUT
55	4		AN4C7A	BOLT
56	2		D3591-1	BUSHING
60	8		D3403-3	BUSHING
61	1		D3405-041	GHW LUG
62	1		D3405-043	GHW LUG
63	4		AN4C47A	BOLT
64	4		MS21043-4	NUT
70	1		D3407-041	TOW RING
71	2		D3417-3	WASHER
72	1		MS21043-4	NUT
73	1		D3456-1	WASHER
91	1		AN3C37A	BOLT
92	1		AN3C40A	BOLT
93	1		AN3C41A	BOLT
94	1		AN3C42A	BOLT
95	4		AN3C43A	BOLT
97	5		AN3C46A	BOLT
99	26		AN960C10L	WASHER
100	13		MS21043-3	NUT

*DENOTES PART IS INCLUDED WITH D3391-043 ASSEMBLY ABOVE

**DENOTES THAT PART IS INCLUDED WITH ASSEMBLY ABOVE

5.2 D412-742-013 (DART TRI-BAG) Float Skidtube Installation Parts List

Item	Qty -013	Qty -043	Part Number	Description
	X		D412-742-013	FLOAT SKIDTUBE INSTALLATION
	1	X	D412-742-043	FLOAT SKIDTUBE
		1	D3391-043	412 FLOAT SKIDTUBE
1		*24	*AN3C4A	*BOLT
3		*10	*AN3C6A	*BOLT
4		*4	*AN3C7A	*BOLT
5		*38	*AN960C10L	*WASHER
21		*1	*D4095-041	*WEARSHOE (REPLACES D3564-1)
22		*1	*D4095-043	*WEARSHOE (REPLACES D3564-3)
23		*1	*D4095-045	*WEARSHOE (REPLACES D3564-5)
10		*1	*D3391-021	*412 FORWARD TUBE
11		**1	**D3401-041	**TOW CAP
12A		**10	**AELS-1032-225	**INSERT (REPLACES NAS1330S3KB166)
13		**10	**AN3C4A	**BOLT
14A		**4	**D3672-1	**WASHER (REPLACES NAS1515H3L)
14B		**10	**AN960C10L	**WASHER
24		**1	**D4095-051	**WEARSHOE (REPLACES D3564-13)
20		*1	*D3391-023	*412 MID TUBE
28		**20	**AELS-1032-130	**INSERT (REPLACES NAS1330S3KB116)
30		*1	*D3391-025	*412 AFT TUBE
25		**1	*D4095-049	**WEARPAD (REPLACES D3537-1)
26		**1	*D4095-047	**WEARPAD (REPLACES D3537-7)
31		**1	**D2646	**AFT CAP
32		**14	**AELS-1032-130	**INSERT
36		**8	**AELS-1032-225	**INSERT (REPLACES NAS1330S3KB366)
37A		**6	**AN3C4A	**BOLT
37B		**4	**AN3C5A	**BOLT
38A		**2	**D3672-1	**WASHER (REPLACES NAS1515H3L)
38B		**10	**AN960C10L	**WASHER

(CONTINUED ON PAGE 22)